

Feeding habits and habitat of herbivorous mammals from the Early–Late Hemphillian (Miocene) of Costa Rica

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Carbon and oxygen stable isotope values in the dental enamel of fossils were used to infer the diet and habitat of the extinct equids *Calippus hondurensis*, *Dinohippus mexicanus*, and *Protohippus gidleyi*, the gomphothere *Gomphotherium hondurensis*, and the llama *Hemiauchenia vera* of the Early–Late Hemphillian (Hh2) from San Gerardo de Limoncito, Puntarenas province, Costa Rica. The results suggest that these mammals fed mainly on C3 plants and lived in clearings of rainforests. This contrasts with previous studies from North America that indicated that the same species lived in forest savannas and fed mainly on C4 plants, but it is similar to the results obtained from the palynological record of the area, as well as with several vegetation models suggesting the presence of humid tropical forest during the Miocene in Central America.

Key words: Mammalia, carbon and oxygen stable isotopes, Neogene, Hemphillian, Costa Rica.

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